Thu, 5 September 2024
Weekly Newsletter

DVN Interior

NEWSLETTER #226

Editorial

DVN Interior Workshop @ Torino: Docket Is Final!

PISTA 500 IN TORINO (FIAT IMAGE)

The automotive industry is giving much more thought to its overall environmental impact, and working to lessen it by developing EVs, circular economy principles, and using recycled materials to make parts. Plastics, especially in car interiors, is increasingly seen as a carbon-footprint hot spot.

But do sustainable interior materials have a significant effect on a vehicle's carbon footprint? The short answer is no. Certainly, moving from virgin wood to recycled, or from animal skin to vegan leather, has some benefit, but does it persist in the end net analysis? Replacing a combustion engine with an electric motor goes much further. Nevertheless, recycled and sustainable interior materials tend to be much lighter than traditional ones, which reduces vehicle weight, and contributes to increased range and efficiency.

DVN Interior's next event is in less than 2 months, on 22-23 October in Torino, Italy. The rubric is **Mobility and Sustainable Interior Design**, and in this newsletter you'll find the final docket.

Highlights will include a visit to Stellantis' labs and La Pista 500, the historic Fiat test track and access ramp on the roof of Lingotto; keynote lectures from Italdesign, Pininfarina, Stellantis, and major interior and material suppliers; two panel discussions exploring how interior design and materials can support sustainability and evolve into regenerative business.

Don't miss it, register now! All information is on the **DVN Interior Website**, including the detailed docket, expo program, and last-minute sponsorship opportunities. I look forward to meeting you there.

Philippe Aumont
DVN-Interior General Editor

In Depth Interior Technology

Do Sustainable Interiors Affect Vehicle CO2 Footprint?

PISTA 500 IN TORINO (FIAT IMAGE)

There's been a lot of exciting progress in the use of sustainable and circular materials for car interiors recently! Here are some highlights coming directly from automakers:

Foam in Fords

FORD IMAGE

Ford was the first automaker to formulate and test new seat foam and plastic components using carbon dioxide as a feedstock. With up to 50 per cent CO_2-based polyols, the foam is meets rigorous test standards. CO_2-derived, more sustainable foam will reduce the use of fossil fuels.

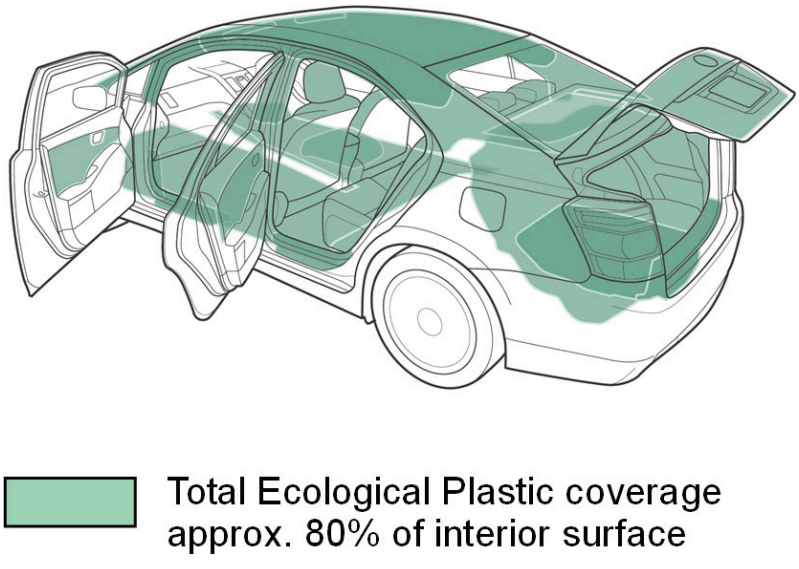
Ford also uses soy-based foam, developed in their biomaterials lab in Dearborn, Michigan. It first appeared in the 2008 Mustang, and has since been incorporated into every Ford and Lincoln seat cushion in the U.S; the eco-friendlier material has also been made available to other automakers.

GM and cardboard

BUICK LACROSSE (GM IMAGE)

General Motors' recycling project is using soundproofing material made from recycled cardboard packaging from parts suppliers, including a proprietary blend of wood pulp for fiber headliners in the Buick LaCrosse and Verano.

Toyota and sugarcane



TOYOTA IMAGE

Toyota makes seat cushions, radiator tanks, and other components from bioplastics that use glycol from renewable sugarcane instead of from petroleum.

More examples from recent years

BMW I3 WITH STANDARD EUCALYPTUS TRIM (BMW IMAGE)

- BMW puts sustainably-grown eucalyptus wood into the dashboard of the electric i3. They also use plant-fiber-reinforced material in door cladding, and recycled plastic fabric seat covers.
- The Audi A3 has cotton fiber in the floor insulation, recycled paper in the cargo area floor, and cellulose in the headliner.
- The Chrysler 300 has recycled plastic in the console and center stack.
- The Dodge Dart used fabric from recycled denim jeans in the trunk liner.
- The Honda Accord Hybrid and Plug-In Hybrid have a proprietary biofabric in the seat covers.
- The Hyundai Elantra and Kia Rio have soy-based foam seat cushions.
- The Jeep Wrangler has recycled plastic in the underbody shields and wheelwell liners.
- The Kia Soul EV has cane- and cellulose-based bioplastics in the door panels, headliner, seat fabric, roof pillars, and carpeting.
- The Lincoln MKX has plastic reinforced by cellulose from sustainably-grown trees replacing fiberglass in the center console.
- The Lexus RX 450h uses bioplastics in its seat cushions.
- The Nissan Leaf has recycled soft drink and water bottles in the seat cover fabric, and recycled jeans and other cloth in sound-deadening panels.
- The Toyota Corolla has bioplastics in the seat cushions.
- The Volkswagen Golf uses cotton fiber in the floor insulation, recycled paper in the cargo area floor, and hemp and flax fiber in the door panel trim.
- Mercedes' Dinamica microfiber is a synthetic suede that looks great and offers exceptional grip on steering wheels, seats, and other high-touch surfaces; it is made from recycled bottles. Floor coverings contain Econyl, which includes recycled nylon waste from old fishing nets and carpet remnants. It also uses Karuun, an innovative compressed timber product that grows very fast and is harvested by hand in Indonesia.

And this list could go on and on! Sustainable, recycled interiors are just one element of more sustainable motoring. But as something we feel, touch, and see daily, it sounds consistent with the industry efforts trying to minimize overall impact of mobility on the planet.

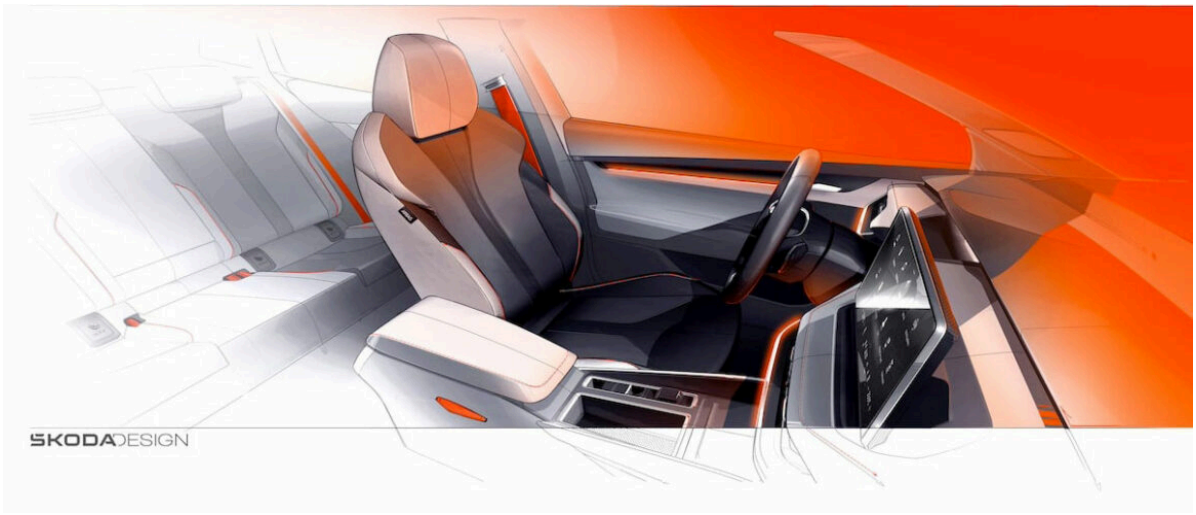
Mercedes

VISION EQXX INTERIOR (MERCEDES IMAGE)

Mercedes-Benz's sustainable business strategy calls for reducing fleet consumption through lightweight construction. The Mercedes Vision EQXX electric concept uses a fully bio-based material developed by UBQ Materials and made from organic and unrecyclable household waste. UBQ is used in the 'bionic' structure of the vehicle's body shell and in interior structures such as the headrests.

Israel-based UBQ Materials focuses on closing the loop between the ecosystems of waste and materials. Their bio-based UBQ thermoplastic is made entirely from residual waste, including organics and hard-to-recycle materials. The company is expanding globally, working to provide the world's largest businesses, municipalities, and consumers with a climate-positive solution for a circular economy.

Škoda Elroq



The new Škoda Elroq uses advanced sustainable interior materials, including Recytitan and Technofil.
The seats and upholstery fabrics are made from recycled plastic bottles and, for the first time, recycled clothing. These are carefully reprocessed into high-quality new yarns and fabrics for the Elroq.

Recytitan is used for the door panels, seat covers, dashboard, armrest, and knee pads. It is made of 78 per cent recycled PET from the likes of plastic water bottles. In the Lodge Design Selection, Škoda uses Technofil, which contains Econyl yarns made from reclaimed nylon from old fishing nets and fabric scraps. Lodge pairs black fabric with light grey artificial leather, highlighted by orange contrast stitching and matching orange seat belts.

Careful attention to detail during the spinning and warping of yarns ensures a perfect balance of comfort, durability, and sustainability. The remaining material is derived from new PET (16 per cent) and, for the first time, also mechanically-recycled fibers recovered from post-consumer clothing (6 per cent).

Kia

Kia has been developing a broad range of natural materials.

Their CMF design team took inspiration cues from Earth to create the EV4 concept's cabin. By applying natural dyes to recycled cotton, using madder roots and walnut shells, the team can provide a wide range of colors.

Already, Kia says they have successfully implemented more than 30 sustainable solutions in various product areas, including fabrics and carpets using recycled PET, bio-based alternative leather, and paint free of benzene, toluene, and xylene (BTX). Additionally, they say 20 per cent of all their vehicles' plastic parts will be made from recycled plastics by 2030.

The company also has committed to completely phasing out animal leather in all future products. Instead, they'll replace both leather and PVC with bio-polyurethane derived from the likes of corn and eucalyptus. They say this material is an optimal leather replacement, since it incorporates plant-based components and provides excellent support, cushioning, and durability. Kia says this move will reduce CO_2 emissions and the use of toxic chemicals, without sacrificing durable design aesthetics.

Kia wove fabric stripes by hand and applied them to create a 3D knit finish effect to the concept car's seat covers.

KIA PRESIDENT & CEO HO SUNG SONG (L) & OCEAN CLEANUP FOUNDER & CEO BOYAN SLAT, APRIL 2022

Kia also plans to focus on what they call 'bio fabrication', and to this end, they have partnered with South Korean startup Mycel, which produces fungus-inspired biomaterials. Fungi are well known for decomposing organic matter. The branching threads of fungal mycelia, called hyphæ, can break down long chains of hydrocarbons, including some plastics and unrefined oils.

Seoul-based Mycel has focused on the role of fungi as a link between industrial systems and natural ecosystems. Kia says Mycel's technology could un-doom billions of livestock animals and reduce greenhouse gas emissions.

Kia's Head of CMF Design Marília Biill says, "Using Mycelium enables us to mimic the processes we see in nature and leverage it to design more sustainable solutions. The material can be grown in any shape you want using a mold. The use of Mycelium is still at a very early stage, and, as part of Kia's sustainability strategy, we are working with partners to accelerate development of the material. One day, by growing our own materials, we'll be able to simplify processes, adapt forms, and—most importantly—be closer to nature in its essence".

Circularity and the Automotive Industry

Automakers and suppliers are working to improve sustainability in the automotive industry, in part by accelerating the circular economy. Unlike the prevalent linear economic model, wherein products are made, used, and discarded, in the circular-economy model products are designed and built to remain in use for as long as practicable. Then materials are recovered and reused to the extent practicable at the end of life, reducing the need for virgin materials and helping keep materials out of landfills and our environment.

To achieve circularity, automakers and their suppliers—nudged along by regulations such as the E.U.'s ELV (End of Life Vehicles) rules—are rethinking the entire vehicle life cycle, from design to manufacturing and maintenance to end-of-life. Realizing a circular economy for vehicles will reduce their environmental footprint and help keep plastics and other materials in use and out of our environment.

As automakers commit themselves to circularity, chemical suppliers who provide plastic- and polymer -based parts are increasing their use of recycled materials. This reduces demand for virgin materials, and helps reduce CO_2 emissions over the lifespan of the vehicle.

Interior News

New Car Paint Reflects Heat

INTERIOR NEWS

NISSAN IMAGE

A new paint co-developed by Nissan and Radi-Cool, a specialist in radiative cooling products, has a useful property: it reflects heat to keep car interiors cooler, lessening the burden (and therefore power consumption) of air conditioning. The paint incorporates metamaterials: synthetic composites with structures that exhibit properties not usually found in nature.

In November 2023, Nissan started a 12-month feasibility trial at Tokyo International Air Terminal in Haneda. In collaboration with Japan Airport Terminal Company, Radi-Cool Japan, and All Nippon Airways (ANA) airport service, Nissan's cool paint has been applied to an NV100 service vehicle operated by ANA.

The paint's cooling performance is particularly noticeable when the vehicle is parked in the sun for an extended period. A cooler cabin is not only more pleasant to enter, but also requires less air-conditioning runtime to cool the cabin to a comfortable temperature. This helps reduce load to the engine, or in the case of an electric vehicle, draw on the battery. In both powertrains, an improvement in efficiency is expected, as well as occupant comfort.

The metamaterial embedded within Nissan's cool paint has two microstructure particles that react to light. One particle reflects near-infrared rays in the sunlight that would typically cause molecular-level vibrations within the resin of traditional paint to produce heat.

The second particle enables the real breakthrough. It creates electromagnetic waves which counteract the sun's rays, redirecting the energy away from the vehicle into the atmosphere. Combined, the particles in Nissan's cool paint reduce the transfer of heat into surfaces such as the roof, hood, doors, and panels.

Although still in testing phase, the results to date have been impressive. Parked side-by-each under the sun, the vehicle with cool paint has shown as much as a 12-Celsius-degree reduction in exterior surface temperatures and interior temperatures as much as 5 Celsius degrees cooler, compared to a vehicle with traditional automotive paint of the same color. There's more information in this video.

Hyundai-Kia's Technologies for Comfort, Efficiency

INTERIOR NEWS

HYUNDAI-KIA IMAGE

During Heat Tech Day in Seoul, South Korea, Hyundai and Kia unveiled three technologies to closely regulate vehicle interior temperature, for better passenger comfort and energy efficiency:

- Nano cooling film significantly lowers interior temperature in hot weather when applied to vehicle glass.
- Radiant heating systems quickly and efficiently raise the perceived temperature around passengers in cold weather.
- Metal-coated heated glass is a world-first 48-volt system which quickly heats the glass to remove frost and moisture.

All three technologies are at levels of technological maturity suitable for mass production.

During testing, Hyundai and Kia each prepared pairs of vehicles, applying nano cooling film to one and not the other. Vehicles with regular glass recorded an interior temperature of 48.5°C, compared with 36.0°C for the vehicles with the film, demonstrating a maximum temperature reduction of 12.5°C with the advanced technology applied.

The film blocks infrared radiation from outside the vehicle, like traditional tint films, while also allowing heat to escape from inside the vehicle. It has three layers; two reflect solar energy and one emits mid-infrared wavelengths. It can be used with existing tint films without reducing light transmission through the glass.

The radiant heating system is designed to quickly warm passengers during winter. It has a high-temperature film-type heating element and a burn-prevention system. The heating element, which can reach 110°C, is wrapped in a fabric material that emits infrared rays and adjusts the heat to a comfortable level. The burn-prevention system detects body contact and immediately lowers the temperature.

Alongside the vehicle's existing heater, the radiant system could reduce by up to 17 per cent the energy required to reach a desired temperature, while also saving time to comfort; the system delivers warmth to the lower body within three minutes. The system is also expected to significantly extend the driving range of electric vehicles in winter by reducing energy used for climate control. On Kia's equipped EV9, nine heating panels are installed, including on the steering column base, driver's door, and center console, as well as the passenger door and glovebox base.

HYUNDAI-KIA IMAGE

The metal-coated heated glass system quickly removes frost or moisture from a vehicle windshield during winter, offering improved visibility and increased safety compared with regular tungsten wire heating elements. The new 48-volt defroster is invisible, and can completely defrost the glass surface within five minutes at -18°C, about a quarter of the time needed for a conventional HVAC-based defroster to do the job, while using about 10 per cent less energy. On hot days, the metal coating can passively block at least 60 per cent of solar energy, reducing cabin cooling requirement to significantly improve energy efficiency.

HYUNDAI-KIA IMAGE

Your Own Personal Audio: Harman's Seat Sonic

INTERIOR NEWS

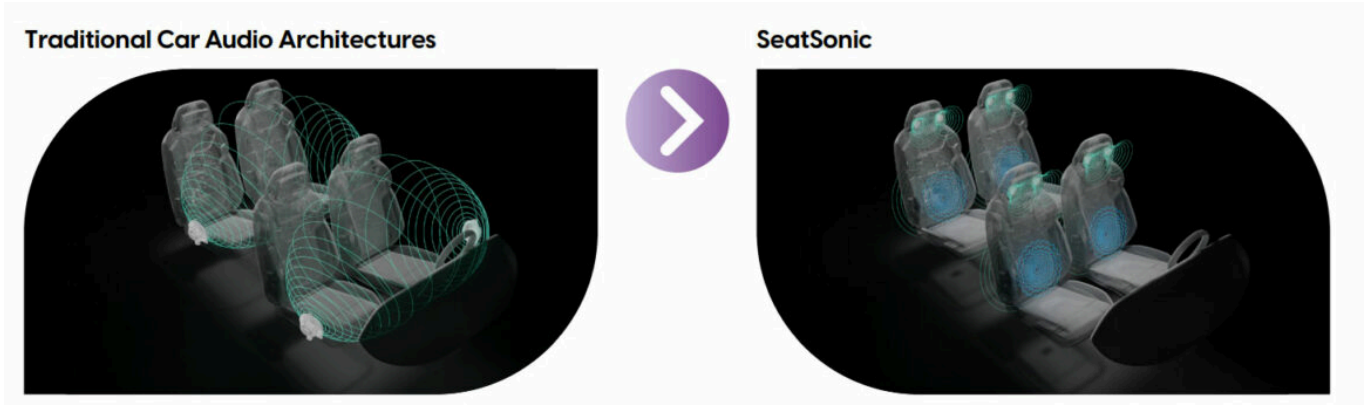
HARMAN AUTOMOTIVE IMAGE

Harman's Seat Sonic technology is designed to enhance in-car entertainment by integrating sound into vehicle seats. This technology uses vibration transducers embedded in seats, which convert audio signals into vibrations.

It is a flexible and scalable solution which moves hardware components from doors to seats, reducing weight and complexity and allowing more in cabin design freedom.

It consists of two units: one sealed into a headrest frame enclosure, left and right, with acoustically optimized coupling. Bandwidth is 200 Hz to 20 kHz. The nearfield transducers are 50 mm in size and weigh very little; this part of the system is 2 × 8W (left and right).

The second part is a subwoofer integrated into the seat backrest, with a dual-function 70-Watt unit which provides audibles bass and tactile feedback to the occupants.



HARMAN AUTOMOTIVE IMAGE

HARMAN AUTOMOTIVE IMAGE

Advantages include:

- Individual audio settings for every seat in the car; each occupant can set their listening preferences independently of other seats.
- Noise cancelling: the system eliminates road noise and in-car distractions from other passengers.
- Better communication with either individual seat occupants or all passengers.
- Scalability with number of seats, offering different variants from unbranded basic to high performance Harman is said to be working with Adient to supply Seat Sonic. However, details of when the system will make it to an actual production car are yet to be revealed.

Audi Reportedly Puts Huawei Tech in China-Spec A5

INTERIOR NEWS

AUDI IMAGE

Chinese trade media have reported that Audi wants to use assistance systems from Huawei in the Chinese version of the new A5.

Audi China has neither denied nor confirmed these reports. Audi in China stated somewhat tersely that they are relying on 'various forms of cooperation with local and global suppliers in different fields' to provide its customers with the best driving experience.

Chinese companies have in some cases overtaken German and international competitors when it comes to electric powertrains, electronics and software. In view of declining market shares in China, more and more international car manufacturers are focusing on cooperations with Chinese suppliers. In this way, they hope to remain attractive to high-tech-loving Chinese customers and stem the gradual decline in sales figures in China.

Huawei has for several years now been expanding their business as an automotive supplier with major investments. They are attempting to generate more growth in this way after their smartphone business suffered from the general saturation of the electronics market and chip boycotts by the US government on grounds of alleged spying by Huawei on behalf of the Chinese Government.

A total of ten car models from seven manufacturers, including Aito, BAIC, Changan, Chery, Dongfeng, GAC and JAC, will be equipped with technology from Huawei by the end of this year, according to the company itself.

Card Game Uno Comes to BMW, Mini Models

INTERIOR NEWS

BMW IMAGE

Toy manufacturing and entertainment company Mattel, gaming platform AirConsole, and BMW Group have collaborated to bring Mattel's card game Uno to BMW and Mini vehicles.

The three companies have transformed Uno into a playable connected game in a car. Drivers can use AirConsole's game controller system to connect passengers to the game using their personal devices. Up to four players can experience the game when vehicles are parked.

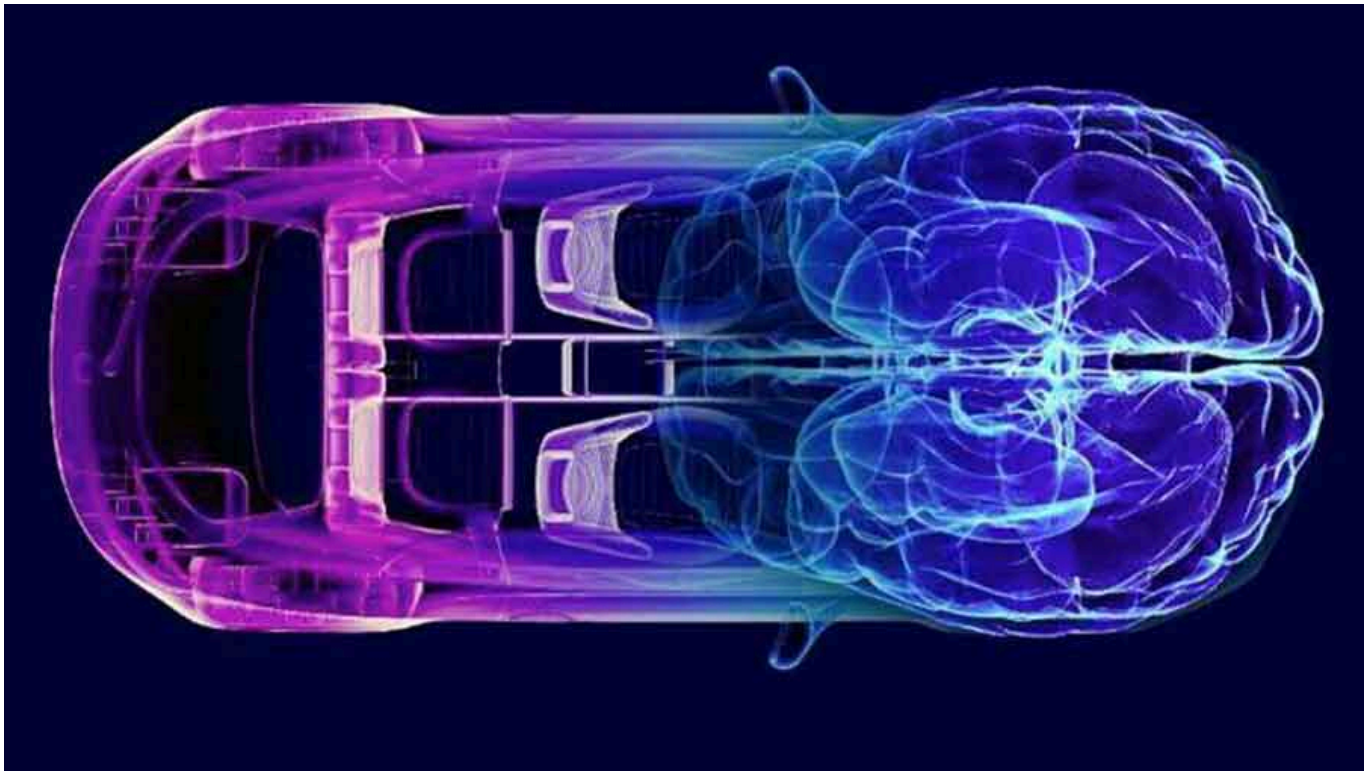
Stephan Durach, senior VP of the BMW Group's development connected company and technical operations, said, "AirConsole and Mattel are helping to make in-car gaming into a new social experience, and I am thrilled to offer a family-favorite game like Uno for this exciting innovation".

Anthony Cliquot, CEO of AirConsole, said, "Each player can secretly see their own cards on their phone while playing on the infotainment system of the car. This is an experience that would be impossible to achieve using only touchscreen or Bluetooth controls on the infotainment system".

Erika Winterholler, head of digital gaming business development at Mattel, said, "Its simple rules are easy to learn and endlessly captivating, making it ideal for both short pit stops and extended play sessions. Uno's social nature turns every journey into a fun experience, and we're so excited to bring this spirit to consumers in an innovative way".

Is Gen-AI the Future of the Automotive Everything?

INTERIOR NEWS



AUTOBRAINS IMAGE

Generative 'artificial intelligence' ('AI') is popping up everywhere, and is changing processes and business models. This is the message of a new publication by the Capgemini Research Institute, "Harnessing the Value of Generative AI 2nd Edition: Use Cases Across Sectors".

The term 'generative' refers to artificial intelligence that can create content, such as text, images, and computer code. The best-known application is ChatGPT.

69 per cent of companies in the automotive industry stated that generative 'AI' can be used to increase turnover and innovative strength. Christian Hummel, Head of Automotive at Capgemini Invent, says, "More than two-thirds of companies in this sector expect Gen 'AI' to increase sales and boost innovation—another significant increase on last year".

Here's what he reads in those tea-leaves: "We are currently experiencing the beginning of a new era of human-machine interaction that will significantly change working methods in the automotive industry".

According to the publication, by and by generative 'AI' will no longer just provide support, but will also increasingly take on complex tasks partially autonomously, which will enable companies to make business processes more efficient and derive added value from 'AI' investments.

In the automotive industry, 93 per cent of companies surveyed for the publication allow the use of publicly available Gen-'AI' technologies in the workplace, raising a key question of how to validate decisions made by multi-agent systems, to ensure transparency and traceable responsibilities.

The Design Lounge

Smart #5 SUV: Big is Beautiful!

THE DESIGN LOUNGE

COFFEE CORNER
DVN
Interior

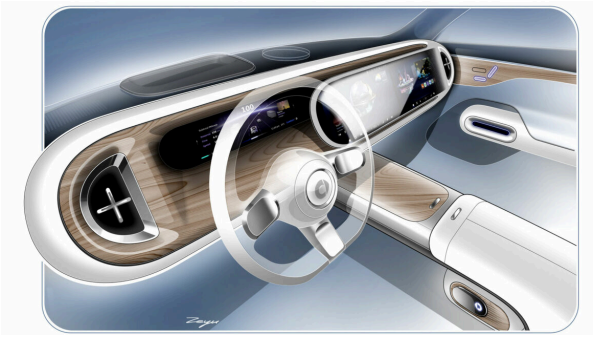
SMART IMAGES

Last week, Smart officially unveiled their new #5 models at a world-premiere event in Byron Bay, Australia. With this vehicle, the brandenters the premium midsize SUV segment.

Smart Automobile is a joint venture established by Mercedes-Benz and Zhejiang Geely Holding Group in 2019, aimed at producing Smart-badged cars in China to be marketed globally. The venture is headquartered in Ningbo.

The Smart #5 was designed by Mercedes-Benz, and carries on typical Smart-brand design elements: a panoramic halo roof, frameless doors, and short front and rear overhangs. The #5 has a wheelbase of 2,900 mm, with an overall length of 4,705 mm.

Alongside the #1 and #3, the new #5 offers another premium SUV equipped with state-of-the-art electric drive, ADAS technology, and a seamless, intelligent cockpit.



The #5 offers a modern, spacious, and tech-savvy interior. Zero-gravity seats with 121° of recline, upholstered in leather with V-shaped head curtain airbags, cushion airbags, and seat-integrated safety belts are among the highlights. In the rear, leather seats with spacious 1,060-mm headroom, heating, seatback adjustment, electric sunshield, and airplane-style LED reading lights also come with a 'First Class' setting, while the one-button comfort mode offers passengers more legroom. Accents such as oak wood trim and curved, oblong design elements ensure the premium character of the interior.

There's a modern HMI with what the maker says is an intuitive design. It is equipped with a 25.6" AR-HUD, a 10.3-inch full-color Ultra HD LCD instrument cluster, and two 13” AMOLED 2.5K displays. A generative AI voice assistant enables the driver to use a variety of sources to provide precise answers to almost any question. Interacting with Smart's avatars, the driver can control key functions with their voice alone, including phone calls and messages, music and media, climate control, navigation, personal settings, and vehicle control, as well as all internet functions. A new lion avatar, Leo, guides users through the controls.

Comfort features include the ambient lighting with 256 colors and the ability to adjust all seats to create a king-size, queen-size, or single sleeping space in the cockpit. The entertainment system features a built-in projector paired with a Sennheiser sound system with 20 speakers plus a portable one. The raising speaker with ambient lighting synchronizes with the rhythm of the music. There are 34 storage compartments, a 72-liter frunk, and up to 1,530 liters of storage in the rear.

The vehicle uses the advanced AMD V2000 high-computing-power chip. The processor excels at rendering the vehicle's low-poly smart OS user interface, which is based on the Unreal engine and manages the real-time effects critical for a responsive, smooth, and aesthetically-pleasing experience. The result is an integrated system that combines superior computing power with contemporary design.

News Mobility

Berlin's Hydrogen Cab Fleet is Growing

NEWS MOBILITY

TOYOTA IMAGE

The 'H2 Moves Berlin' pilot project has been running since November 2022. Cabs can be ordered via the Uber app and drive electrically on request. The project partners are Toyota Germany, the mining company Anglo American, the fleet operator Safe Driver Group, and the mobility service provider Ennoo.

The overarching project is 'H2 Moves Europe', and the cabs have driven almost seven million kilometers since the start of the project, in over 550,000 regular journeys. The vehicle fleet has grown significantly; in addition to the current 80 vehicles, Toyota says another 35 Mirais are to be added in the coming week. Apart from which, 35 other Toyota fuel cell cabs are on the road in Berlin as part of another project.

In Paris, Hype, a cab company exclusively using hydrogen vehicles, has been operating their fleet since 2015; now they'll be bringing 250 more vehicles into service in Paris. The fleet operator has also been active in Brussels since April of this year. The main partner there is Stellantis with hydrogen battery hybrids; Toyota Mirais and Hyundai Nexos also are running as cabs in the Belgian capital, with a total of 50 vehicles at the moment.

By 2026, Hype wants to be active in 16 more cities and regions in Europe; Le Mans, Bordeaux, Barcelona, Madrid, Lisbon, and Porto are currently confirmed. The aim is to create an 'Atlantic-Mediterranean hydrogen corridor', an EU-funded connection along which hydrogen filling stations in the selected cities will provide green hydrogen.

Mobileye Software for Infotainment, Too

NEWS MOBILITY

MOBILEYE IMAGE

Mobileye, the Israeli technology company specializing in autonomous driving, has new software called Brain6. It is designed to deliver an image-based driving assistance system they say is 'two orders of magnitude' better than current offerings and lets the company expand into infotainment. The Brain6 software will be coupled with the company's latest EyeQ6 sensor to support semi-autonomous and autonomous driving enhanced by artificial intelligence.

The software can be customized so carmakers can embed it into infotainment systems. Mobileye has up to now offered products only for driver assistance systems and autonomous vehicles, while other chipmakers such as Qualcomm and Nvidia offer a wider range of customizable chips that can power multiple in-car systems, including infotainment.

The Brain6 software will be developed using mapping data from Mobileye's existing fleet of customer vehicles and augmented with 'AI' to enable a more natural response. "This crowdsourced mapping not only teaches Brain6 how to interpret road conditions everywhere, but also provides valuable insights into driving behavior," says Mobileye CEO Amnon Shashua, adding that the company will reveal more about Brain6 at an investor event in Berlin on 9-10 December. Mobileye's portfolio includes a range of assisted driving platforms, from simple driver assistance systems to a more complex semi-autonomous system called SuperVision. There are also the Chauffeur and Drive autonomous systems, which combine multiple sensors and are powered by a combination of EyeQ6 chips.

VW will use the Chauffeur system to develop L^4 autonomous passenger cars, according to the two companies. Meanwhile, Rimac's new Verne robotaxi service will use Mobileye's Drive system.

General News

The Most Popular Chinese Cars in Europe

GENERAL NEWS

The market share of Chinese manufacturers in Europe is increasing. In the first six months of this year, almost three per cent of newly-registered vehicles came from Chinese brands, according to Jato statistics.

The strongest Chinese brand by far was the former British brand MG, now part of SAIC, with 126,000 units. № 2 position was taken by BYD with 17,000 units, and DR Automobiles with 13,000 newly registered vehicles in the first six months of this year. DR is primarily active in Italy, where they operate a factory assembles Chery and JAC vehicles, as well as slightly-modified ones sold under the DR marque. The three most popular Chinese vehicles in Europe come from MG. They are followed by Smart and Polestar. In sixth place in the model ranking is the BYD Atto 3, a vehicle from a brand without a European background.

The Volvo EX30, manufactured in China, was the third-most-registered electric car in Europe in the first half of 2024. The fourth most popular was the MG 4, also made in China. China has been instrumental in driving the growth of the market. Without these competitive prices from China, consumers will face higher prices, which means demand could fall in the coming months.

Top 10 Chinese cars in Europe (January-February 2024)

№ 1: MG ZS: 14,085
№ 2: MG4: 8,805
№ 3: MG HS: 7,795
№ 4: BYD Atto 3: 2,132
№ 5: BYD Seal: 1,082
№ 6: MG5: 1,029
№ 7: BYD Dolphin: 987
№ 8: Xpeng G9: 530
№ 9: MG Marvel R: 362
№ 10: GWM Ora 03: 320

German Suppliers Cut Thousands of Jobs

GENERAL NEWS

ZF IMAGE

German automotive suppliers—and those in Europe more broadly—have been announcing major job cuts on a regular basis for several quarters. ZF Friedrichshafen, for instance, announced intent to cut up to 14,000 of their 54,000 jobs in Germany by 2028.

According to management consultancy Horváth, production is increasingly taking place in the regions where the cars are sold. Car manufacturers and their suppliers are building up capacities in Eastern Europe, India, China and other Asian countries, as well as in North and South America.

While there were still 311,000 employees in the German automotive supply industry in 2018, this year there are only around 270,000. Observers expect the number to fall to around 200,000 by the end of the decade. One key driver of the workforce shrinkage: EVs have fewer parts than combustion-engine vehicles. As demand drops for kinds of parts no longer needed, there will be less work for people in those industry subsectors.